

IN THE CLAIMS

1. (original): A process for making an electronic device which comprises applying a non-aqueous plate-resistant ink by ink jet printing to selected areas of a dielectric substrate, optionally laminated with an electrically conductive metal(s), exposing the plate resistant ink to actinic and/or particle beam radiation to effect polymerisation, adding one or more metal layers by electrolytic or electroless deposition, the upper layer of which is an etch-resistant metal(s), removing the polymerised plate-resistant ink with alkali and finally removing the electrically conductive metal(s) which are optionally directly laminated to the dielectric substrate and not protected by an upper layer of etch-resistant metal(s) by chemical etching wherein the plate-resistant ink is substantially solvent-free and comprises:

- A) 30 to 90 parts acrylate functional monomers free from acid groups comprising mono- or higher functionality wherein 5 to 95% by weight are mono-functional monomers;
- B) 1 to 30 parts acrylate functional monomer containing one or more acid groups;
- C) 0 to 20 parts polymer or prepolymer;
- D) 0 to 20 parts radical initiator;
- E) 0 to 5 parts colorant;
- F) 0 to 5 parts surfactant; and

where the ink has a viscosity of not greater than 30 cPs (mPa.s) at 40°C and all parts are by weight.

2. (original): A process as claimed in claim 1 wherein the amount of mono-functional acrylate monomer is not less than 70% by weight of component A).

3. (currently amended): A process as claimed in ~~either claim 1 or claim 2~~ wherein the amount of component B) is 1 to 10 parts by weight.

4. (currently amended): A process as claimed in ~~any one of claims 1 to 2~~ claim 1 wherein the amount of component B) is not less than 3 parts by weight.

5. (currently amended): A process as claimed in ~~any one of claims 1 to 4~~ claim 1 wherein component B) is acrylic acid or mono-2-(methacryloyl)ethyl phthalate.

6. (currently amended): A process as claimed in ~~any one of claims 1 to 5~~ claim 1 wherein the radical initiator is a photo initiator activated by UV light.

7. (currently amended): A process as claimed in ~~any one of claims 1 to 6~~ claim 1 wherein the ink has a surface tension of from 20 to 40 mN/m.

8. (currently amended): A process as claimed in ~~any one of claims 1 to 7~~ claim 1 wherein the viscosity of the ink is from 8 to 20 cPs (mPa.s) at 40°C.

9. (currently amended): A process as claimed in ~~any one of claims 1 to 8~~ claim 1 wherein component B) has an acid value of not less than 100mg KOH/g.

10. (currently amended): A process as claimed in ~~any one of claims 1 to 9~~ claim 1 wherein the total etch-resistant ink has an acid value greater than 30mg KOH/gm

11. (currently amended): An process as claimed in ~~any one of claims 1 to 10~~ claim 1 wherein the amount of component C) is zero.

12. (currently amended): A process as claimed in ~~any one of claims 1 to 11~~ claim 1 wherein the amount of radical initiator is not less than 0.1 parts.

13. (currently amended): A process as claimed in ~~any one of claims 1 to 12~~ claim 1 wherein the dielectric substrate is laminated with an electrically conductive metal.

14. (original): A process as claimed in claim 13 wherein the electrically conductive metal is copper.

15. (currently amended): A process as claimed in ~~either claim 13 or claim 14~~ wherein the metal layer(s) is deposited by electrolytic deposition.

16. (original): A process as claimed in claim 15 wherein the metal layer(s) is copper, nickel, tin/lead, silver, palladium or gold.

17. (currently amended): A process according to ~~any one of the preceding claims~~
claim 1 wherein the number of parts of components A) + B) + C) + D) + E) + F) = 100.

18. (currently amended): An electronic device containing electrically conductive
circuitry which is made by the process as claimed in ~~any one of the preceding claims~~. claim 1

19. (original): An electronic device as claimed in claim 18 which is a printed circuit
board.